Asking Answerable Clinical Questions

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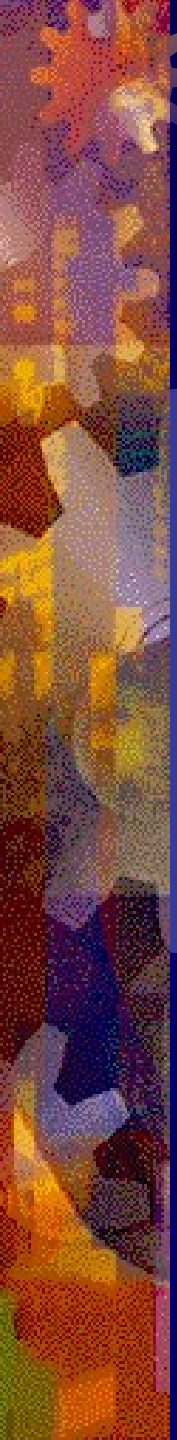


Who
What
When
Where
Why
How

When questions arise, where do you turn for answers?

1. Colleagues*
2. Drug References*
3. Textbooks
4. Journals
5. Other sources (Internet, formal consults, etc.)

What about the other 50%?

- Half of clinical answers not even pursued because:
  1. Time
     - 2 minutes or less!
  2. Accessibility
     - At your fingertips!
  3. Knowledge
     - ‘It’s better to die than to look bad’

- There is no way to know all of the answers all of the time
- The challenge is to find the ***best*** answer for the ***individual*** patient as ***efficiently*** as possible

Case Report

- A 67-year-old man presents with a 4-day history of dyspnea, cough and fever.
  - Purulent sputum
  - Lateral chest wall pain-pleuritic
  - Rigors

Sackett, 2000

Case Report

- His general health is good
- He has had essential hypertension for 12 years. It is well controlled on diuretic therapy.
- He is a non-smoker.

Case Report

- On examination, RR = 28; HR = 108; T= 39.2°C.
- He appears ill and in mild distress.
- Rales and egophony are noted in the left lower posterior lung field.
- Otherwise the exam is generally normal

Case Report

- Labs:
  - CBC = 20K
  - Na+ = 130 mEq/dL
  - Glucose = 175 mg/dL
  - PaO2 = 60 mmHg on Room Air

Background Questions

- Questions that pertain to general or *“background”* information surrounding the disorder/disease of interest.

Background questions

- Ask for general knowledge about a disorder
- Have two essential components:
  1. A question root (who, what, where, when, how, why) with a verb
  2. A disorder, or an aspect of a disorder

Background Questions

1. What microbial organisms most commonly cause community-acquired pneumonia?
2. How does pneumonia cause egophony?
3. What is the incidence of community-acquired pneumonia?

Foreground Questions

- Ask for specific knowledge about diagnosis, prognosis and treatment
  - Information relating to patient management

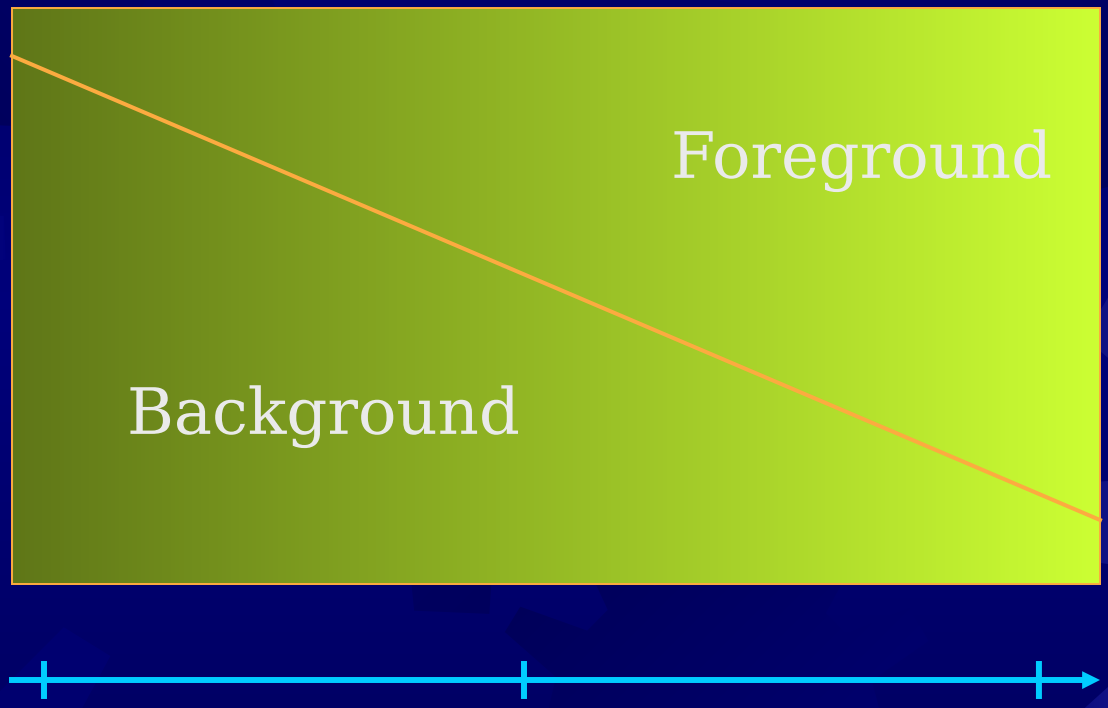
Foreground questions

- Have four essential components:
  1. The patient and/or problem of interest
  2. The main intervention (defined very broadly, including an exposure, a diagnostic test, a prognostic factor, a treatment, a patient perception, and so forth)
  3. Comparison intervention(s), if relevant
  4. The clinical outcome(s) of interest.

Foreground Questions

- In this patient are any clinical findings sufficiently powerful to confirm or exclude pneumonia?
- In this patient is a chest radiograph necessary for the diagnosis?
- In this patient , do clinical features predict outcome well enough to safely treat the patient as “low risk” at home?

Background and foreground questions



Background vs Foreground Questions

- Background:
  - What is…?
  - Use Textbooks for these
- Foreground:
  - Specific Clinical Issues
  - More Sophisticated Resources

Unfocused Questions

- Leading or closed ended
  - “I think that stress echocardiography is the best new way to diagnose CAD—don’t you?”
- Imprecise
  - “What is the best medication for hypertension?”

Typical Questions

1. Are we there yet?
2. How much further?
3. Where’s my allowance?
4. Do I have to go to school today?

The Anatomy of a Question: “PICO”

- Patient or problem
- Intervention
  - Cause
  - Prognostic factor
  - Treatment etc
- Comparison intervention (if necessary)
- Outcome(s)

My 1 yr old just had a febrile seizure - what will happen to her?

Write one clinical question using the PI

One Possibility:

- Patient: In children 6mo-6yrs who have had
- Intervention/Exposure: a first febrile seizure, what is
- Outcome: the likelihood of recurrent febrile seizures; epilepsy; neurologic damage?

P = Patients

- Think about who / what you wish to apply this evidence to... e.g.
  - Patients with a particular disorder?
  - Patients in a particular care setting?
  - Particular groups of patients

I = Interventions/Exposures

- The intervention / exposure of interest
  - Treatment—medication, surgery
  - Diagnostic Test
  - Exposure (smoking, alcohol)

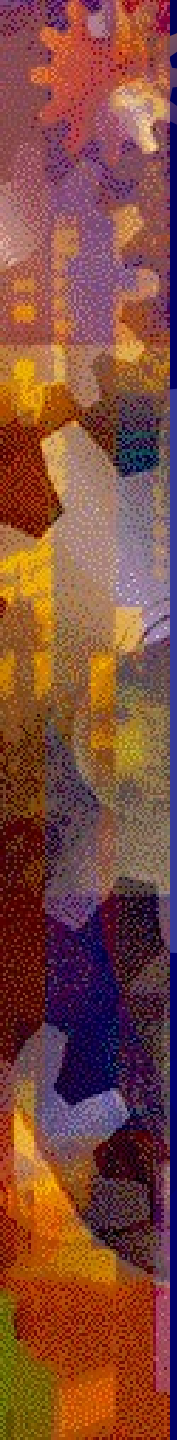
C = Comparison

- The comparison or alternative
  - (Not applicable to all questions)
    - Drug, placebo, etc.
    - ?Gold standard
  - For example, refine the question about stress echocardiography in the preceding slide

- Leading or closed ended
  - “I think that stress echocardiography is the best new way to diagnose CAD—don’t you?”
- “In middle-aged men with a clinical history compatible with coronary artery disease, is stress echocardiography superior to conventional exercise testing to confirm the diagnosis”

O = Outcomes

- Outcome of interest:
  - Cure
  - Duration of disease
  - Death
  - Side effects
  - Pain (reduced)
  - Well-being



My uncle is 70 years old - should his doctor order a PSA?

Write your clinical question using the PI

One Possibility

- Patient: In asymptomatic older men
- Intervention: does PSA testing
- Outcome: lower the morbidity or mortality from prostate cancer?

Elementary my Dear Watson

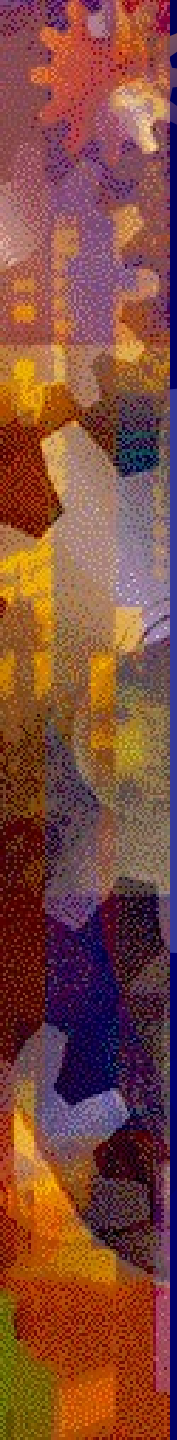
- Foreground
- Background
- PICO

Common Problems

1. Don’t know where to start!
2. Trouble articulating a specific question
3. More questions than time

Questions Patients Want Answered

1. What do you think the problem is?
2. What do you think the best treatment is?
3. What other options are available?



Another perspective (or is it just another acronym?)

SOUND Questions

GOOD Care

SOUND

- S = Specific
- O = Outcomes
- U = Understandable
- N = No Bull!
- D = Deliverable